Postwar Pueblo Indian Agriculture: Modernization Versus Tradition in the Era of Agribusiness

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IRRIGATION WITH SIPHON TUBES AT SAN FELIPE PUEBLO, NEW MEXICO
For centuries, agriculture was the backbone of the Pueblo Indian economy in New Mexico. Since prehistoric time, crop irrigation was as symbolic of their culture as buffalo hunting was for the Plains Indians. During their historic contact with Spanish, Mexican, and U.S. governments, these nineteen tribal communities resisted most innovations introduced by outsiders and clung to traditional methods of farming and the religious ceremonialism that accompanied it. In the century following the U.S. takeover of the Southwest, Pueblos maintained the agricultural system of their ancestors. Tribal authorities controlled plots of land and doled them out to individual farmers. Pueblo farmers generally farmed these plots—typically irregular in shape—to support a subsistence way of life.

Although the degree to which the various villages held on to ancient practices varied from one group to another, the Pueblos adopted change only when it posed little or no threat to the ways of the past. The exigencies of the depression era, however, weakened some of those ties, for the Pueblos had to boost agricultural production to feed their growing populations. The war years only intensified this tendency; the Pueblos, like other tribes throughout the nation, increased production to support the war effort. Indeed, while

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Native Americans expanded cultivated ground by 150,000 acres nationally, Pueblo land devoted to agriculture rose by almost 3,000 acres. Much of this increase was a consequence of land-acquisition programs that also helped them to expand garden and livestock production. Ironically, this dramatic change occurred at a time when one-third of the Indian population across the country had left reservations to serve in the military or work in war-related industries. The Pueblos sent to the armed forces a higher percentage of men than any ethnic group in the country, significantly reducing the number of available farm workers. The increase in Pueblo agricultural production, though uneven throughout their reservations, stemmed from the introduction of modern farm machinery—a trend they had resisted in the past.

Thus, modernization edged its way into Pueblo life in the decade before the end of the Second World War, but their traditional subsistence agricultural program faced a greater long-term threat in the conflict's aftermath. The war opened a different world to the Pueblos and other Native Americans, bringing them new skills, opportunities, and a greater degree of acceptance. Whether they served in the war or worked in domestic industries, Pueblos acquired experience that prepared them for employment in the modern economy. In conjunction with these abilities, some Pueblos utilized the G.I. Bill after the war to prepare them for a different way of life. For many of these people, the search for employment would lead them to cities distant from their homelands. Those who stayed behind would face an agricultural future far different from the past. For them, a major question surfaced: How could they compete in an agricultural world that was undergoing a technological and economic revolution?

Industrial America underwent dramatic expansion after the war and change in the agricultural sector was even more striking. The dramatic growth in agricultural productivity was the product of rapid mechanization, scientific advancements, increased specialization, modern management, and government subsidies. At an accelerated pace, the traditional family farm began to give way to the new agribusiness that drastically reduced the farm population, greatly increased production, and yielded lower farm prices. Commissioner of Indian Affairs William Brophy noted that future Indian agriculture would likewise require larger units of production, the application of scientific and technological innovations, and large investment of capital. He also acknowledged the supreme challenge this presented to Native Americans who generally lacked capital, lived on lands in need of rehabilitation, and faced grave challenges to their water rights.
In many ways, the plight of the Pueblo farmers paralleled that of small farmers nationwide—both eked by against great odds. Government subsidies benefited agribusiness and urban areas offered better wages and job diversification. As a result, farm populations on and off reservations declined dramatically after World War II. While the agricultural revolution created a new kind of rural poverty among poor whites and minorities, its impact was even greater on Native Americans because of their unique historical experience. Indian law and bureaucratic red tape complicated advancement, and traditionally, reservation development lagged behind non-Indian businesses. Many Pueblos, like other Americans, turned to new occupations—mining, Los Alamos jobs, ranching, recreation—while others profited from the growing interest in Native American arts and crafts in society and the marketplace. However, farming still remained important to the Pueblos as their transmission of traditional agricultural knowledge to younger generations was rare among western Native peoples.5

For those who remained on the reservations after the war, the opportunity to succeed in the new economic order dominated by industrial production—even in agriculture—rested on the diversification of the existing reservation economy. Such growth and change presented a tremendous challenge to Pueblo farmers whose traditional methods and religious beliefs hindered economic and agricultural adaptation. But even those willing to utilize the most modern methods available found obstacles to their progress overwhelming. Farmers discovered their small, broken parcels on the pueblos could not compete with the highly mechanized, corporate farms that gradually became the norm in white America. Like other Native Americans, Pueblos lacked adequate machinery, education, money, and, some observers believed, the competitive drive to contend with the forces of modern capitalism that increasingly dominated American agriculture. Like many indigenous people around the globe following World War II, the Pueblos lived in societies generally unstructured and egalitarian but now faced a future shaped by modern corporate capitalism and market agriculture—an economics with which they were unfamiliar.6

However, after decades of resisting American innovations to their ancient traditions, the Pueblos had to embrace modern science and technology and take advantage of a change in government policy toward self-determination before both opportunities slipped away. Uncertain at the time was whether the federal government would catalyze the transition or whether Pueblo leaders would reassert themselves after years of resisting change. The farming
transition would undoubtedly require substantial federal assistance. If these political and economic changes came about, would the Pueblos remain what they always had been—a culture steeped in an agricultural way of life that had defined the core of their existence for centuries?

Soil Conservation

Having sustained themselves for centuries, most Pueblos were fairly independent, but the cost of modern agriculture—flood control, crop irrigation, well drilling, and ever-changing equipment—was staggering. Before those issues could even be considered, however, Pueblo adoption of modern scientific farming methods was essential to the advancement of their agriculture. One method involved practicing soil conservation. Improving Pueblo farmlands was the first step in preserving and strengthening Pueblo agricultural traditions in the postwar years. The deterioration of reservation land was not an uncommon problem, and as Native American farmers emerged from the war, they faced a crisis that had plagued them for decades: almost two-thirds of their reservation acreage were in the arid regions of the West and by 1947 roughly only 8% had undergone necessary soil conservation regimens. Soil erosion was so rampant that by 1949 native farmers had lost 20% of their farmlands to its effects. Commissioner Brophy recognized that if the slow pace of modernization continued, halting the deterioration of Indian land would take well into the next century.7

The agricultural problems facing the Pueblo farmers were outlined in the 1951 Annual Report of the Soil Conservation Operation. Oliver Hole, soil conservationist for the Northern Pueblo Agency (NPA), reported that improper care of agricultural land and irrigation systems had reduced the productivity of Pueblo farms and spawned considerable soil erosion. In fact, soil damage and water shortages had driven farmers to leave fallow a very large section of available farmland. Many farmers had only enough water to sustain perennial crops and raise small gardens. Drought during the previous two years restricted the production of forage, opened fields to wind erosion, and lowered incomes in livestock production. Hole also lamented the Pueblos' limited management of rangeland and land-distribution practices. Having subdivided their farmland over many years, they grew crops on small tracts scattered all over the reservations and thus limited the income potential of their agriculture. Also coming in for Hole's criticism were the tribal governments of the nineteen pueblos. Dominated by conservative elders, Hole felt
these political bodies hampered modernization and progress. Pueblo tribal customs, Hole claimed, hindered the development of mainstream education on the reservations although a large number of Pueblos desired the advantages that it offered.8

In 1951, to overcome the so-called backwardness of the Pueblos, the NPA held eight educational meetings attended by 120 farmers. Agency personnel lectured on all phases of soil conservation, crop production, and produce marketing and also developed a farm plan for the Santa Fe Indian School, which had about forty-five acres under irrigation. The school program, which dealt with crop rotation, fertilizer application, soil erosion, and irrigation problems, demonstrated a significant gain in vegetable production. The NPA also administered programs to control large populations of destructive rodents, a particular problem in the Nambe and Pojoaque Valleys. County agents supplied poison grain to eliminate kangaroo rats and prairie dogs, especially focusing on areas around erosion-control structures to prevent rodent damage. The problem was serious enough that rodent-control efforts were mounted in conjunction with non-Indian farmers to limit the populations more effectively.9

Low rainfall, steep topography, and severe overgrazing generated soil erosion and inedible-plant growth, two severe problems in the pueblos. This, in
turn, reduced the value of the rangeland for livestock production, greatly minimizing Pueblo income. Hole felt that proper range management, followed for a few years, would double carrying capacity. He was pleased, however, that pueblo dikes, diversion dams, and ponds were protecting irrigation systems and spreading excess water over flat areas. Land leveling, although much needed throughout the pueblos to lessen erosion, stirred little interest because of the expense. Wherever possible, the agency tried to encourage contour farming and irrigation to corral the problem. Bureau of Indian Affairs (BIA) reimbursement for NPA conservation work came to over twenty-eight thousand dollars for the fiscal year. 10

In 1951 the U.S. Department of Agriculture sponsored a program to demonstrate the benefits of modern conservation methods to farmers and ranchers throughout New Mexico, choosing the Pojoaque Soil Conservation District as a pilot area. Federal, state, and private agencies tried to apply the program district-wide with the hope of extending it—if it proved to be successful—to other regions. The NPA especially benefited from the project, which included approximately one-third of its land. Having worked with the district for the past two years, the NPA embraced the concept of a watershed plan for the entire region. Interested groups met several times to formulate and initiate the plan and made a number of field trips to familiarize themselves with problems and challenges throughout the district. 11

Although the Pueblos made some improvements in soil conservation, agents in the early postwar era still faced considerable challenges to modernizing their agriculture. Funding limitations translated into staff shortages at the NPA, which had only one conservationist. The Albuquerque district spared limited engineering help, but such staff loans proved burdensome. A fully staffed agency would certainly advance soil conservation for the northern pueblos, but federal funds were limited. Pueblo tradition and culture—primitive farming methods and religious practices—also remained a roadblock to scientific farming in Pueblo country in Hole’s opinion. Indian school children were learning soil and moisture conservation, but Hole wanted adult education to complement and aid the scientific-farming program. 12

By 1954 the NPA enjoyed more cooperation and material assistance from the BIA’s Branch of Soil and Moisture Conservation in reaching the Indians who desired the help. More than in the recent past, the Pueblos demonstrated willingness to accept scientific advice and enthusiasm for soil-conservation practices. Hole attributed the new Pueblo keenness to the attention paid to the Pueblos by other local, state, and federal agencies. The conser-
vation-branch program that had the greatest impact on the Pueblos was the demonstration project. Native farmers witnessed how agricultural improvements could materially increase their income even on small farms or plots. Indeed, progressive Pueblos began to consolidate their lands and apply scientific practices that fit their farms and returned profits. Conservationists hoped that native farmers would adopt additional modern techniques in the coming years. Such advances, however, were offset by Pueblo farmers' inadequate standard of living. The lack of sufficient farm land forced many Pueblos to support their families by working away from home. This situation frustrated Hole, who saw many hours of conservation work and agricultural improvements lost to farmer absences lasting days or weeks at a time.\textsuperscript{13}

Following the trend of other tribes in the West, individual pueblos initiated local farm-aid associations called Conservation Enterprises. In 1956 Isleta and Tesuque formed their organization, with Nambe and San Juan creating theirs the following year. Tribal councils believed that the new organizations would assist their farmers' use and development of soil and water resources and create greater interest among individual farmers in their villages. Each Pueblo reservation set up five-member governing committees that acted as vendors for all construction, made equipment available, and furnished improved varieties of seeds and fertilizers to individual farmers. As time went on, the programs included land leveling to expand irrigable areas, lining ditches with concrete, and purchasing modern equipment to ease the burden of local farmers.

Perhaps the most notable success occurred at Isleta, where credit was extended by the Conservation Enterprise to individuals who repaid their loans through increased income from crop production. Encouraged by the Tribal Council, Isleta's Conservation Enterprise began to lease land in 1960 to bring previously rehabilitated but unfarmed acreage into production. Within ten years 482 acres had been leveled, lined with concrete ditches, and leased to farmers. The two people most responsible for Isleta's success were John B. Caldwell, the tribe's soil conservationist for the BIA, and John D. Zuni, who served on the tribe's first Conservation Services Enterprise and remained actively involved in planning and implementing conservation projects. Caldwell had assisted Isleta since the pueblo began its program in 1956 and worked closely with tribal officials, committee members, and individual farmers. He also maintained a close working relationship with local county officials who ran conservation programs. Embracing modern agricultural techniques, Zuni was the first farmer in the pueblo to line ditches with concrete and one
of the first to lease land that he eventually reclaimed. His innovative approach directly impacted other farmers at Isleta. 14

Santa Clara Pueblo also initiated its Soil Conservation Enterprise in 1956, and within three years its farmers were laying irrigation pipe, purchasing seeds, and leveling land. The community's budget for 1960 and 1961 showed a profit from soil-conservation work. However, two years later Santa Clara farmers terminated their original agreement, claiming that the pueblo's Conservation Enterprise did not provide all desired aid programs. The pueblo wanted services expanded to include rangeland conservation and wildlife and recreation development, programs encouraged nationally by the BIA's Branch of Land Operations (BLO). 15

By 1961 the conservation program had grown more sophisticated. The BLO was now responsible for the management of soil and water resources. The agency consisted of five sections including Soil and Moisture Conservation, Extension, Irrigation, Range Lands, and Sales. The first group emphasized the introduction of practices new to the Pueblos. Working directly with the farmers, BLO technicians introduced the selection of crop varieties better adapted to the high desert climate, proper fertilization and cultivation, insect and weed control, and more efficient applications of irrigation water. Conservationists also assisted ranching operations with detention and diversion dams that spread water and controlled erosion, ponds that supplied water to livestock, and reseeding programs that improved rangeland grasses. The United Pueblos Agency (UPA), under the BIA, heeded the many calls for additional personnel and supplied six conservationists for eighteen pueblos (Zuni being excluded) with each agent covering two to five reservations in close proximity. 16

Fencing Pueblo lands was a common issue throughout the region. Unfenced fields and ranges suffered destruction by the sheep and cattle belonging to non-Indian neighbors. Nambe had started but never completed a boundary fence, while San Ildefonso faced the same dilemma with a very different neighbor, Los Alamos National Laboratories, the United States' primary nuclear-weapons research facility. For three years (1958–1961), the Atomic Energy Commission (AEC), the agency that oversaw the laboratory, had been negotiating with the Pueblo officials over the clear separation of government land from areas considered sacred on the San Ildefonso reservation. The AEC wanted a cost-sharing venture because neither side could afford the whole survey and fencing project. Both sides felt aggrieved—the commission wanted to eliminate Pueblo trespass and both groups sought to exclude roaming, destructive livestock. Finally, the AEC agreed to pay ap-
proximately $4,500 for their share and requested that the BIA allocate between $2,500 and $3,000 while the San Ildefonso supplied the labor.\textsuperscript{17}

Taos Pueblo had a similar fencing problem, but its object was to expand rangeland. In 1956 the tribal council passed a resolution requesting federal funding for fence and cattle guards on a portion of the reservation purchased for livestock grazing in 1937. Never used by the Taos, the parcel was annually abused by non-Indian trespassers running stock. The UPA determined that it could produce good range forage, and Taos officials wanted to plant cool-season grass, which, when combined with native warm-season species, would lengthen the grazing season and alleviate overgrazing on other parts of the reservation. Initially, BIA officials balked at this proposal. In the past, reseeding projects on unfenced range had failed, and the Taos’ proposal made no provision for protecting the reseeded area while they were establishing the grass. The Taos council quickly passed a resolution assuring the BIA that the pueblo would seek measures to protect the range in question, and Superintendent Guy Williams gave his support. The reseeding project, protected by new fence, was a success. Five years later, the Taos again expanded ranch land through the replacement of sagebrush with wheat grass. Once more
they requested federal funds to fence the parcel, having already exhausted tribal money to construct additional fence along the state highway.\textsuperscript{18}

Two Pueblo communities, however, were moving away from executing individual small projects to drafting overall operational plans. Following range soil-site and condition inventories by the BLO in 1960, Taos and Laguna Pueblos adopted range-management plans for all or part of their reservations. The United Pueblos Agency was particularly pleased, for the Taos and Laguna efforts were the first plans ever initiated by the agency. Delighted UPA officials attributed the pueblos’ eager cooperation to a transformation of tribal procedures, which now ran “counter to century-old traditions deeply engrained in their culture . . . in order for them to compete in [the] modern world.”\textsuperscript{19}

The initial steps of soil conservation taken during the 1950s—some heretofore deemed untraditional or unaffordable—served as foundations for future agricultural developments on Pueblo reservations. These first efforts affected land consolidation, land leveling, ditch lining, cooperative planning with state and federal agencies, applying modern science, and developing the first overall operational plans for an entire reservation. Some federal agents and tribal officials believed that the Pueblos had turned the corner toward agricultural modernization.

For almost a generation following World War II, however, Pueblo agriculture faced problems that were neither new nor easily overcome. The chronic underfunding that had always plagued Indian programs continued to limit overall progress. The Pueblos benefited from small gains in range management, district irrigation, and local conservation, but a shortage of technical assistance kept Pueblo-wide farming and pastoral development to a minimum. Restrictions based on Pueblo religious and governmental traditions still hampered BIA personnel and programs. Moreover, as the farm programs of the Pueblos declined, communal economies clashed with market economies and thwarted progress in general.

Self-Determination for Pueblo Farmers

In the 1950s the federal government began the implementation of its termination policy. Designed to sever the ties between federal and tribal governments, termination dealt a heavy blow to agricultural advancement throughout Native America in the United States. Some government officials, recognizing the decline of Indian agriculture and the rise of off-reservation employment af-
ter the war, were already backing away from agricultural programs on the reservations. Indeed, termination was a strong signal to all tribes that the U.S. government had given up the idea of assimilation through agriculture. Land-use programs applied after the war, however, had already helped forge a pan-Puebloism that could combat threats to their traditional lifestyles much as they had done in the past.\textsuperscript{20}

Complaints about termination and its devastating consequences echoed across Indian country to the nation’s capitol, but with the election of John F. Kennedy, a new day dawned for Native Americans. The president, dismayed by conditions of poverty throughout the country, including Indian reservations, sought to improve economic development in Native homelands and extend self-determination to Native peoples. Following the theme of the United Nations in pronouncing political independence and economic growth for third-world nations, he sought to extend the goals of economic development and self-determination to Native peoples. In 1961 Secretary of the Interior Stewart Udall assembled a task-force report on Indian affairs that emphasized the development of tribal resources, both human and natural. More than a decade would pass before termination ended as a federal policy but the next three administrations would continue to push for the economic advancement and self-determination of Native Americans.\textsuperscript{21}

What began as antipoverty programs under Kennedy expanded into the War on Poverty during Lyndon B. Johnson’s administration. The Office of Economic Opportunity (OEO)—created by the Economic Opportunity Act of 1964—oversaw the programs and encouraged local communities to take on decision-making power. However, intense lobbying by various Indian organizations was needed before Congress extended the OEO benefits to Native Americans with the creation of a special “Indian desk.”\textsuperscript{22}

As a result of Johnson’s OEO program, Community Action Projects encouraged tribal councils to develop their own economic programs. Commissioner of Indian Affairs Philleo Nash requested that, with the assistance of local BIA superintendents, all reservations nationwide initiate a ten-year development program to determine the needs of individual tribes. In June 1964 the BIA held a conference in Santa Fe to disseminate information on the program. BIA superintendents in New Mexico were encouraged to inform tribes about available services. Designed to be “people oriented,” the program emphasized community action and cooperation between the BIA and local Indians. Accordingly, the superintendents determined that overall Pueblo goals should include the development of irrigation, range, and arable lands. They
next surveyed each pueblo to learn its specific priorities for new programs and funds.

To combat high unemployment on the reservations, the pueblos listed a number of agricultural goals and priorities. Many cited the need to improve and increase range and agricultural land with better irrigation systems and flood-control programs. Others submitted specific wish lists. Isleta wanted to prepare its remaining 4,100 acres for irrigation and to drill auxiliary wells for specialty crops. Acoma sought irrigation facilities to utilize water from the San José River. Jémez hoped to rehabilitate its entire 2,500 acres of irrigable land and Picuris wanted to do the same with 220 acres in addition to developing over 14,000 acres of rangeland. San Juan's priority was the improvement of 2,000 acres of irrigable land and the pueblo also hoped to acquire land adjacent to its reservation. Santo Domingo set a target date of 1975 for developing over 3,000 acres of farmland and 65,000 acres of rangeland for nine hundred animals. Taos hoped to add 5,000 more acres of irrigable land and Tesuque 800 more acres respectively to their reservations. Of course, none of these wishes would become reality without funding. Indeed, lack of money would be a major obstacle to Johnson's antipoverty programs including those in Pueblo country. In spite of the fact that the number of farmers was dwindling proportionally to population growth, the Pueblos, still clinging to their traditional economy, saw expanding agriculture as a way to combat chronic unemployment and poverty in their homelands.

During the 1960s, the federal government began to increase assistance to the development of agricultural resources on Indian reservations. By 1968, to that end, almost half of the BIA's budget was being pumped into other federal agencies including the Department of Agriculture. Although that department did not administer any specific reservation programs, it did oversee others that benefited Native Americans. For example, many New Mexican tribes participated in soil- and water-conservation projects that aided the Rio Grande Valley.

The spirit of cooperation between federal and state agencies was highlighted in 1963 when Secretary Udall signed an agreement with the Pojoaque-Santa Cruz Soil and Water Conservation District in New Mexico. For the first time the Interior Department indicated a willingness to work with a local district on an area development project. Previously, there had been some cooperation between districts and the Agriculture Department, but the Interior Department had disregarded those conservation efforts to concentrate on its own regional initiatives. The National Association of Soil and Water Conservation Districts hailed the agreement as a big step toward future cooperation
in developing western land. For the Pueblos, who came under the control of the Interior Department and also fell under the jurisdiction of state conservancy districts, this action meant cooperation between typically conflicting agencies in establishing uniform goals and procedures for conservation projects without any conflicts of interest. 25

Recognizing that federal assistance alone could not solve the region's economic depression, the Pueblos joined their non-Indian neighbors in various Resource Conservation and Development (RC&D) projects that were authorized under the Food and Agricultural Act of 1962. Under the leadership of the Soil Conservation Service, the northern New Mexico RC&D work was one of ten pilot projects approved by the secretary of agriculture in 1964. Realizing their common problems, the people of the region, in conjunction with the Soil Conservation Service, the New Mexico State Engineer, the Bureau of Indian Affairs, and other local agencies and civic organizations, pooled their resources to combat poverty in their locale. The effort was a perfect example of how local people with a voice in determining their economic future could work with government agencies to accomplish their goals.
Given the untapped resources of the region, RC&D's purpose was the conservation and development of those resources. This included the establishment of facilities for marketing local fruits and other specialty crops, improvement of community irrigation systems and rangelands, and flood prevention. The project specifically focused on developing the overall resources of the eight pueblos in the region. In addition to increasing employment and per capita income, the RC&D hoped to stabilize the agricultural economy through effective land use and conservation practices as well as to increase the value of crops. As a result of the RC&D's work, the BIA reported some impressive accomplishments by the northern pueblos including range and irrigation improvements and watershed protection projects.

As early as 1965 Walter W. Olsen, general superintendent of the UPA, reported that all eight northern pueblos had submitted project proposals under the RC&D work plan and that accelerating regular BIA programs designed to create new jobs and opportunities in the region was spurring forward Pueblo development initiatives. Specifically, San Ildefonso was working with the Pajarito community in lining nine thousand feet of irrigation ditches—a project that was noteworthy in its interracial cooperation. Santa Clara had approved a similar project of thirty-five hundred feet and, with the help of the BIA, installed a mile-and-a-half pipeline that opened a new grazing area on the reservation. Nambe also completed a watershed project in which twelve hundred acres were cleared, seeded, fenced, and fitted out with three livestock water tanks and twelve erosion control dams.

The work of the Soil and Moisture Conservation Service (SMC) went so well that it offered examples for others to follow. In 1963 the SMC allocated over $268,000 for UPA programs, breaking down the sum into land use planning (28%), soil improvement (20%), water management (44%), and operation and maintenance (8%). The pueblos recognized that they could use funds only in areas where proper management practices were followed and that the details of the plan had to be approved by their people. Santa Clara was allocated $27,000 for a showcase project and two years later, in 1963, the conservation service of the pueblo entertained the idea of paying for equipment to level eight acres of land for an experimental farm. In 1966 the BIA set up a conservation-training program for a group of African students who toured the Southwest that summer. They visited Taos, Jémez, Zia, and other pueblos with a special emphasis on conservation.

Thus, the 1960s represented a major shift in emphasis for the Pueblo farming programs. Previously thwarted by the termination program, the pueblos
found a new spirit of cooperation with the federal government. Johnson’s War on Poverty initiatives helped rejuvenate Pueblo agricultural activity, emphasizing the maximum utilization of resources and the cultivation of specialty crops. The new cooperative efforts not only brought together state and federal agencies, but also the Pueblos and their Hispanic neighbors. This new combination of groups saw that they had more commonalities than differences and assisted one another in natural-resource development. More importantly, the voice of local people was now being heard. Progress would be slow, but a new age of self-determination was beginning.

With detailed plans and mutual cooperation, it appeared that authorities needed only to find the human and financial resources to bring the dreams to reality. Still, there were major gaps to bridge. Traditional Pueblo subsistence farming continued to present a major barrier to a full-blown modern agricultural program. More problematic was that maximization of land and water resources required huge capital outlays from federal authorities to a small group of Native Americans who heretofore had been largely ignored. In addition, as the decade of the sixties wore on, tax dollars would shift from the War on Poverty to the war in Vietnam. The policy of “guns and butter” would produce far more of the former than the latter.

Extension Service

The Pueblos’ success in rapidly changing modern scientific farming depended on acquiring an awareness of the latest methods available. As federal policy moved away from termination and toward self-determination, many federal agents believed that the best way to capitalize on the new independence was education at all levels. Created by the federal government, the Cooperative Extension Service provided agricultural education for all American farmers. Initially, the BIA was responsible for providing Native Americans with technical assistance under the Extension Service program, but in the 1960s state universities were contracted to provide the services. New Mexico State University (NMSU) was charged with the responsibility of disseminating information to local tribes. A. E. Trivis, who administered the program until 1971, ran an aggressive program that was administered by local extension agents working directly with tribal members. Similar government programs before World War II were staffed by agents who were typically incompetent, underpaid, and little concerned with the plight of Pueblo farmers. After the war, however, the agents were qualified, full-time employees and provided services aimed at the needs
of the Pueblos. The budgets of the NMSU extension program reflect that, early on, Zuni was more actively involved in the program than all of the other Pueblos combined. The Zunis received 42% of the 1969 budget, compared to 27% for the whole UPA. The money helped finance two agricultural agents while the other Pueblos had none.29

The Extension Service program moved ahead, but with mixed acceptance. By 1975 the Zuni budget increased only slightly, while the Southern Pueblos Agency's (SPA) budget grew to almost five times what it was for the entire UPA during the six previous years. Participation in the program was strictly voluntary and the eight northern pueblos decided not to receive services. Tribal leaders of the SPA, however, were impressed with the information they received and surprised with the development in local Pueblo leadership, which they hoped would continue. They also wanted future assistance with setting up new farming operations, local crop demonstration plots, and improved water distribution systems. Unfortunately, the national economic recession of the late 1970s undermined the extension program.
Federal budget cuts came at a time when the Pueblos' interest in the Extension Service was peaking. Underfunding, therefore, threatened recent gains made by the tribes.  

The work of the Extension Service, however, made significant progress in a relatively short time. The program worked so well at Zuni that tribal officials decided to sever ties with the service. By 1981 the Zunis terminated their agreement with NMSU and closed the Extension office. Zuni had always been the most independent of the pueblos (a condition fostered by both geographical isolation and distinctive linguistic traits), and its leaders believed that after fifteen years of Extension assistance, they could competently handle their own business. However, Area Director Sidney Mills found their decision distressing. He was aware that Extension Agent Elmer Allen had helped the Zunis make vast improvements in their livestock program and develop their local leadership, but Mills lamented that the Zunis would sorely miss the extension program in the future.  

In addition to the university's program, the Pueblos also received technical assistance directly through the federal government. In 1975 Area Director Patrick L. Wehling contacted all New Mexican Pueblos about their participation in the Agricultural Conservation Program. Working in conjunction with the Soil Conservation Service, the BIA urged interested Pueblo farmers to prepare a conservation plan as a prerequisite. New Mexico officials distributed handbooks that explained the program to interested parties. Along with federal and local authorities, the pueblos established guidelines to facilitate sound resource-management systems through conservation and erosion control.  

Additionally, Commissioner Morris Thompson of the BIA made natural-resource management a national objective. He believed that establishment of firm policies would improve management of resources that were important to both the federal government and Native Americans. He stressed soil and range inventories, technical education programs, and comprehensive management plans for Indian ranchers. He also wanted to provide a technically trained agricultural specialist to inform Indian landowners about farmland resources, federal cost-sharing programs, and management options. In a short time policies for improving natural-resource management were being implemented at all pueblos. Each agency's highest priority was hiring an agricultural specialist. By 1977 a number of the pueblos made plans to hire a natural-resource manager with command of the native language if possible.  

Technical assistance programs elevated the sophistication of Pueblo agriculture to a new level. Tradition-bound farmers held sway for generations
after the vanguard of American occupation arrived. Not until the New Deal period did the farmers begin to ease their grasp. Basically ignored in the post-war termination era, much Pueblo farming activity remained stagnant and large bodies of resources lay undeveloped. With the advent of self-determination policy, federal officials hoped to increase the economic independence of Pueblo farmers. Nothing was more beneficial in this effort than the work of the Extension Service, whose officials and agents determined early on that the key to unlocking the door of opportunity for native farmers was education. Educational opportunities, however, could only be cultivated through federal funding, which would remain a challenge.

Pueblo agriculture faced a plethora of challenges during the 1960s and 1970s. Beginning with self-determination, the Pueblo voice, idle for so long, was reawakened. Federal bureaucratic policies and dictates remained a constant in Pueblo life, but they were increasingly designed to prepare the Pueblos for the complex future that awaited them. Governmental officials at federal, state, and local levels put a new emphasis on cooperation, although state officials were often less helpful than their federal counterparts. Both ranchers and farmers faced the prospect of mastering a new level of sophistication in their attempts to modernize Pueblo agriculture. The combination of economic planning, resource management, range surveys, and archaeological and environmental laws replaced the rather haphazard modernization programs of the past. Some Pueblos were ready to engage the challenges of the modern world and to gain economic benefits for their people, but as a whole, the Pueblos still rejected ideas and methods that were incommensurate with Pueblo tradition and life.

Pueblo officials, however, still faced overwhelming obstacles: economic development, flood control, and population growth. Each challenge impacted the region's most precious resource—water. Surprisingly, the keenest interest in these threats to Pueblo agriculture occurred at a time when farming was in decline. Farming had long been the hallmark of Pueblo self-reliance, but the forces set in motion after the war were threatening their most traditional occupation.

The Decline of Pueblo Agriculture

The general downward trend of Pueblo agriculture in the postwar years is best measured by observing the change in the number of irrigated acres on individual reservations. A breakdown of these statistics during the New Deal and post–World War II period is provided in the following table. 34
### Pueblo Irrigated Acres

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acoma</td>
<td>1015</td>
<td>1054</td>
<td>789</td>
<td>723</td>
<td>293</td>
<td>-722</td>
<td>-71%</td>
</tr>
<tr>
<td>Cochiti</td>
<td>776</td>
<td>727</td>
<td>586</td>
<td>505</td>
<td>188</td>
<td>-588</td>
<td>-76%</td>
</tr>
<tr>
<td>Isleta</td>
<td>3340</td>
<td>3212</td>
<td>2289</td>
<td>2788</td>
<td>3503</td>
<td>+163</td>
<td>+5%</td>
</tr>
<tr>
<td>Jémez</td>
<td>1391</td>
<td>1486</td>
<td>1362</td>
<td>742</td>
<td>275</td>
<td>-1116</td>
<td>-80%</td>
</tr>
<tr>
<td>Laguna</td>
<td>1456</td>
<td>943</td>
<td>812</td>
<td>222</td>
<td>-1234</td>
<td>-85%</td>
<td></td>
</tr>
<tr>
<td>Nambe</td>
<td>291</td>
<td>182</td>
<td>122</td>
<td>78</td>
<td>-213</td>
<td>-73%</td>
<td></td>
</tr>
<tr>
<td>Picuris</td>
<td>188</td>
<td>180</td>
<td>177</td>
<td>101</td>
<td>-87</td>
<td>-46%</td>
<td></td>
</tr>
<tr>
<td>Pojoaque</td>
<td>39</td>
<td>24</td>
<td>18</td>
<td>15</td>
<td>-24</td>
<td>-62%</td>
<td></td>
</tr>
<tr>
<td>Sandía</td>
<td>853</td>
<td>741</td>
<td>351</td>
<td>1320</td>
<td>1335</td>
<td>+502</td>
<td>+60%</td>
</tr>
<tr>
<td>San Felipe</td>
<td>1499</td>
<td>1249</td>
<td>1340</td>
<td>651</td>
<td>469</td>
<td>-1030</td>
<td>-69%</td>
</tr>
<tr>
<td>San Ildefonso</td>
<td>265</td>
<td>208</td>
<td>170</td>
<td>130</td>
<td>-135</td>
<td>-51%</td>
<td></td>
</tr>
<tr>
<td>San Juan</td>
<td>932</td>
<td>716</td>
<td>621</td>
<td>636</td>
<td>-296</td>
<td>-32%</td>
<td></td>
</tr>
<tr>
<td>Santa Ana</td>
<td>559</td>
<td>583</td>
<td>488</td>
<td>376</td>
<td>199</td>
<td>-360</td>
<td>-64%</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>430</td>
<td>415</td>
<td>312</td>
<td>807</td>
<td>-377</td>
<td>+87%</td>
<td></td>
</tr>
<tr>
<td>Santa Domingo</td>
<td>1799</td>
<td>1397</td>
<td>1108</td>
<td>793</td>
<td>873</td>
<td>-926</td>
<td>-51%</td>
</tr>
<tr>
<td>Taos</td>
<td>2171</td>
<td>1445</td>
<td>1561</td>
<td>1790</td>
<td>-381</td>
<td>-18%</td>
<td></td>
</tr>
<tr>
<td>Tesuque</td>
<td>177</td>
<td>191</td>
<td>185</td>
<td>68</td>
<td>-109</td>
<td>-62%</td>
<td></td>
</tr>
<tr>
<td>Zia</td>
<td>309</td>
<td>328</td>
<td>346</td>
<td>181</td>
<td>118</td>
<td>-191</td>
<td>-62%</td>
</tr>
<tr>
<td>Total</td>
<td>17,470</td>
<td>15,081</td>
<td>12,637</td>
<td>11,926</td>
<td>-5544</td>
<td>-32%</td>
<td></td>
</tr>
<tr>
<td>Zuni</td>
<td>2511</td>
<td>2757</td>
<td>-</td>
<td>-</td>
<td>+246</td>
<td>+10%</td>
<td></td>
</tr>
</tbody>
</table>

*For pueblos with no 1981 data, 1964 numbers are used. Zuni is excluded for lack of data.

For most pueblos the decline in irrigated acreage is shocking. The majority shows a loss of more than 60%. Only Isleta, Sandía, Santa Clara, and Zuni demonstrate increases from the first measurement in 1938 to the last, with Isleta, Sandía, and Santa Clara showing a remarkable turn around after decades of decline. The presence of Isleta and Sandía in the Middle Río Grande Conservancy District certainly contributed to their acreage increases. Zuni’s upward trend stemmed more from their expansive ranching than from their agricultural efforts. Still, irrigated acreage for two tribes went down by over 80%, and three others showed losses of over 70%. While the Pueblo-wide percentage of decline from 1938 to 1964 was 32%, if the gainers are subtracted from the total, the loss for the remaining Pueblos at the last time they were measured is 6174 acres or 60%.

The overall decline of agriculture was not unique to the Pueblos in the Southwest. In 1973 the Four Corners Regional Commission’s study on agriculture revealed a similar decline for Anglo, Hispanic, and Indian farmers in the area. Agricultural employment went down from 40,600 in 1970 to 32,300 in 1980, and the agricultural sector was predicted to show the slowest growth.
when compared to other economic areas. The shrinking agricultural sector would force many local people (like the Pueblos) to leave their native villages and towns to seek employment elsewhere. Only the Navajo Irrigation Project offered hope for agricultural expansion in the Southwest. In the New Mexico sector of the Four Corners, agriculture's share of the total earnings dropped drastically from 14.9% in 1950 to 7% in 1970. Adding to the problem was the quality of surface and subsurface water, which contained significant quantities of salt.35

Numerous explanations for the slide in Pueblo agriculture have been offered over the years. In 1976, historian Joe Sando of Jemez Pueblo, author of two books on the Pueblos, cited water shortages, soil erosion, and population increases to explain the decline, but he also added the disruptions and upheavals of World War II to his explanatory mix. Pueblo soldiers learned new skills, returned to take advantage of the G.I. Bill, and became skilled workers and professionals. In addition he blamed the soil-bank program that emerged in the 1950s. Under the program, the Pueblos, like other American farmers, were compensated for leaving their lands fallow. Sando observed that by this time, subsistence farming was a thing of the past. Finally, he regretted the introduction of welfare, which, he claimed, “created a new kind of Pueblo person, one who does not work.”36 Certainly this last remark reflects the drop in centuries-long self-reliance that had long been the backbone of the Pueblo character.

Two years later civil engineers William J. Balch and John W. Clark of New Mexico State University analyzed the forces of agricultural decline in Pueblo country. Their explanations echoed reasons cited immediately following World War II. In their opinion, the transfer of land from one Pueblo generation to the next was the principle cause for declining Pueblo agriculture. Although lands belong to the individual pueblo, their rights of use were inherited and this practice over the generations had left modern farmers with small, widely scattered land holdings. The resulting subsistence farming was on the decline because of the large effort required for a small economic return. Balch and Clark simply reinforced what small farmers throughout the country already knew: they were going out of business because they could not afford the technology employed by larger corporate farms. Balch and Clark also cited a shortage of irrigation water and general decline of interest in farming. However, they did point out that while agriculture was not the dominant way of life it once was among the Pueblos, the indigenous religious ceremonialism connected with agriculture was still an important part of their lives.37
A report on Santa Ana by John Baker in 1981 studied trends in its agricultural lands from 1936 to 1980. Farm acreage ebbed and flowed from the late 1930s until 1953 when it dropped substantially from 644 to 460 acres. Over the next twenty-seven years, acreage continued to decline — 292 acres in 1962, 215 acres in 1976, and finally 179 acres in 1980. It was hard to pinpoint the exact cause of this decline; certainly, off-reservation work and the high cost of farm equipment attributed to the loss, but water-flow problems also added to the situation, especially siltation, droughts, floods, and usurpation. In his 1983 study of Acoma, Robert R. Lansford of the Southwest Research and Development Company noted that the largest acreage decreases occurred after 1954 but finally bottomed out in 1975. Farm acreage slightly increased in 1980.

Although these scholars help to explain trends for the pueblos in general, they do not clear up why some Pueblo reservations expanded their agriculture while others contracted their programs. In a number of pueblos, there was a shift from a theocratic to a more democratic form of government. The secular governing bodies often stressed economic modernization over traditional ceremonial practices that slowed agricultural change and growth. This pattern was especially apparent at Santa Clara Pueblo. Other pueblos — such as Sandia and Isleta whose farm acreage expanded — could rely on longer growing seasons because of lower elevation and more naturally level land on their reservations. Zuni’s fundamental change from traditional agriculture to livestock, typical for western Pueblos, resulted from a new importance on market economies and the loss of water resources to siltation and salinization caused by clear cutting at higher elevations.

Many of the agricultural losers turned to other occupations. People from Acoma and Laguna were drawn to the lucrative but dangerous uranium mining industry. Jemez, already troubled by an irregular topography, turned to the burgeoning arts-and-crafts industry. Its people also sought, along with other northern pueblos, employment at Los Alamos National Laboratories. Lying near a reservoir, Cochiti moved into outdoor recreation and invested in a housing development plan that failed. A more proximate cause of its declining agricultural program was a high water table created by water leaking under the Cochiti Dam. On the other hand, Santo Domingo, one of the few pueblos to maintain its traditional ways, stressed livestock expansion near the Jemez Mountains.

Certainly the changes wrought by World War II, and the movement of people into the Southwest, put a strain on water use and agricultural lands throughout the Four Corners region. Educational opportunities opened up
to Pueblo youth and, combined with relocation programs, took many of the best and the brightest away from the reservation farms. A new day had dawned for Pueblo farmers dominated by court fights, modern equipment, and fewer people to produce crops. Receding into the past were the days of subsistence agriculture. The new focus would be on cash-producing crops—the biggest change being the replacement of traditional corn with alfalfa as the pueblos' major crop. If things continued on this course, the oldest continuous irrigation tradition in America would face possible extinction, and the religious ceremonialism that accompanied Pueblo agriculture, the very core of Pueblo existence, would play out against a hollow background.

New Age Pueblos

The idea of focusing in on high market value crops began in 1967 when Domingo Montoya, chairman of the All Indian Pueblo Council (AIPC), contacted Superintendent Kenneth L. Payton of the UPA about the possibility of setting up vegetable demonstration plots in all of the Pueblo villages. The demonstrations were designed to include all phases of gardening—selecting seeds, preparing seed beds, planting, fertilizing, cultivating, irrigating, harvesting, and marketing. Individual pueblos would choose an agricultural leader to guide younger people through the process. In the spirit of economic development, an important adjunct to this plan was to form a Pueblo cooperative that would obtain mechanized farming equipment and assistance for marketing chile and other crops. With large portions of their reservations going fallow, the goal was to interest Pueblo youth in a modernized method of agriculture that would open up new areas of employment.  

By the 1980s the Pueblos initiated a movement to return to their agricultural roots under Southern Pueblo Agency guidance. Sandia started a pick-and-grow vegetable operation and San Felipe conducted a trial between traditional and modern farming methods. After years of encouragement from tribal leaders, Picuris began to clear new areas and plant alfalfa, wheat, and garden vegetables with the hope of eventually marketing outside their village. Gov. Bernard Duran and Lt. Gov. Gerald Nailor, however, worked together in persuading members of Picuris, one of the smallest New Mexican pueblos, to turn the clock back and return to their traditional ways. They hoped to make Picuris' people more self-sufficient and ensure tribal water rights by continuing to use their ancient irrigation systems. Against the tide of shrinking federally funded Indian programs during the Reagan administration, the
eight northern Pueblos were encouraged by a grant from Health and Human Services to create thirty-four jobs designed to put sixty acres of tribal land into crop production.41

The 1990s witnessed an invigorated return to the land by a number of Pueblos. The San Juan Agricultural Cooperative, launched in 1992 by tribal members, was responsible for a revival of farming in the San Juan river valley. Pueblos now farmed land that had been barren for decades, and the cooperative, which also operated a food processing plant, marketed their crops. Funded by the New Mexico Community Foundation, the cooperative hoped to provide a sustainable economic program that would embrace the Pueblo traditions. As manager Jeff Atencio declared, “If we lose our farming, we’re going to lose a big part of our religion.” Their ties to the past were revealed in the name of their product line: “Pueblo Harvest Foods.” Their line included dried green chile and stew, smoked tomatoes, chicos, pozole stew, another of squash, beans and corn, and dried apples, cantaloupe and honeydew melons—all very marketable. They were sold in almost fifty stores in a dozen states including a cooperative in Albuquerque and markets in Santa Fe and Taos.42

Revitalization of agricultural traditions at Zuni were an important part of its Sustainable Agriculture Project (ZSAP). ZSAP was funded by a grant from the Ford Foundation to bring back agriculture on a big scale under the direction of Donald Eriacho. A component of the Zuni Conservation Project was to restore land and water for future generations and promote family farming and gardening. Another project managed by Zunis was the Zuni Folk Varieties Project designed to identify seeds their ancestors carefully developed for the pueblo’s unique climatic conditions. The village also initiated the Zuni Irrigation Association, education programs, and cooperative research with outside scientists to advance agriculture on the reservation.

Other Pueblos joined the back to the land movement as well. At Tesuque, Clayton and Margaret Brascoupe planted two big fields of corn, beans, and squash — crops historically associated with Pueblo agriculture — as part of a farming project to raise half of their family’s food. Their seeds and methods were more traditional than those advocated in scientific farming. The Brascoupes considered gardening and nature as great teachers that generate “respect and the desire to help others.” Leonard and Elsie Viao of Laguna complemented the return to native tradition by raising corn to cover the shrine during the pueblo’s annual festival.45
For many people the trek back to the past arose from dissatisfaction with social and political conditions that encouraged and allowed them to stray away from their Pueblo heritage. As Cochiti tribal councilman Marcello Suina stated, “We lost the way we lived.” For Cochiti, the return to Pueblo culture began in 1969 when the pueblo leased its land to a California developer who then subleased the property for residential-housing construction. Cochiti’s people were lulled into thinking that the housing development would put them on easy street. In 1984 the investor declared bankruptcy and the pueblo bought back the lease, but by then their last alfalfa crop had rotted from water released by the Cochiti Dam seepage. The pueblo became disillusioned and sought to turn things around. Middle-aged Cochiti tribal leaders, armed with college degrees and business experience, attracted the attention of Congress, which authorized a $12 million settlement between the tribe and the Corps of Engineers to fix the damage caused by the groundwater leaking under Cochiti Dam. By 1995 the farmland was dry enough to sow. Unfortunately, many people, especially young ones, had lost interest in farming and the pueblo had to hire a non-Indian, educated in agriculture, to steer its residents back to their agricultural way of life. Still, tribal councilman Andy Quintana believed that many would find their way back to the soil, for there was “always something to learn from the land . . . always some kind of strength to be drawn from it.”

Perhaps no single crop represented the turn toward marketing in the new-age agriculture better than blue corn, a product that had been grown by Indians of the Southwest for centuries. Its color connoting harmony, longevity, and good luck, blue corn was considered a sacred plant by many Pueblos. In the modern era, however, health-conscious consumers, seeking an organically grown crop, encouraged New Mexican farmers to grow almost one thousand acres of blue corn, which produced about half of the nation’s supply. Since it contained 20% more protein, 50% more iron, and twice as much manganese and potassium as yellow corn, consumers were willing to pay a premium price for the blue variety.

The Pueblos became attracted to blue corn and even held a seminar at Santo Domingo for farmers who wanted to learn more about its production. Leading the way was Santa Ana, which received a $20,000 grant from the Ford Foundation in 1992 for a project that would combine the revival of traditional farming practices with new economic opportunities. After decades of allowing land to go fallow, the farmers at Santa Ana dedicated one hundred acres to the cultivation of blue corn, alfalfa, and vegetables. They also had a
grain mill that produced blue corn meal, atole, and a salted parched-corn snack food. In the process Santa Ana revived two traditions—farming and self-reliance. The movement away from federal aid and toward economic independence was aided by Santa Ana’s effort to attract the attention of a British business known as the Body Shop, which sold skin and hair products at 860 stores in forty-two countries. The English enterprise worked for some six years to help developing communities turn traditional crops into profitable ingredients for its cosmetics. The Body Shop’s engagement with Santa Ana led to seven blue-corn items, including moisturizer, soap, and body oil, that were sold in 130 stores throughout the United States.45

The Legacy

What will be the future of Pueblo agriculture? Will the Pueblos continue to embrace two worlds at the same time or become overwhelmed by modernization? As younger generations continue to lose their languages, surf the net, intermarry, watch television, and move into the fast-paced economy of modern America, will they lose interest in their roots so deeply embedded in their native soil? Will gambling casinos, now becoming common on Pueblo reservations, replace traditional occupations? Who will labor in the hot and dusty fields while air-conditioned gaming facilities beckon? More importantly, what will become of traditional religious ceremonialism that has accompanied their farming activities since ancient times?

Answers to all of these questions are purely conjectural, of course, but one should never underestimate the power of Pueblo cultural traditions. A half-century ago some experts predicted the demise of Pueblo religion, but these projections have proven to be false. In all probability, farming will never achieve the zenith of the past, but it is difficult to imagine the extinction of Pueblo agriculture. As modern communication links obliterate regional and cultural distinctions, however, so too will the Pueblos become more American and less Native American. But the powerful ties to the past, though stretched thin in the distant future, will remain. Without them, Pueblo religion would lose its meaning and so too would the descendants of prehistoric southwestern farmers who once carved out earthen canals to provide for their very existence.

Notes

1. For Pueblo traditions and change during the New Deal and war years, see James A. Vlasich, “Transitions in Pueblo Agriculture,” New Mexico Historical Review 55 (Jan-
For increase in Indian agricultural land and participation in the war effort, see Kenneth William Townsend, *World War II and the American Indian* (Albuquerque: University of New Mexico Press, 2000), 188–89.


9. Ibid.

10. Ibid.

11. Ibid.

12. Ibid.


17. Dewey Dismuke to L. C. Boldt, 2 July 1951, Letters Received, Office of Rights Protection, Bureau of Indian Affairs, Albuquerque Area Office (hereafter LR or LS [Letters Sent], ORP, BIA, Albuquerque); and William Brophy to Wade Head, 18 December 1961, Letters Received, Natural Resources Records-Branch of Forestry, Bureau of Indian Affairs, Albuquerque Area Office (hereafter LR or LS [Letters Sent], NRR, BIA, Albuquerque).


27. Walter W. Olsen to Pablo Roybal, 14 July 1965, LS, NRR, NPA, Santa Fe.

28. Melvin Helander to General Superintendent of the UPA, 27 September 1962, LR, NRR, NPA, Santa Fe; Alfredo Naranjo, *Minutes of the Santa Clara Conservation*
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Services, 18 March 1965, LR, NRR, NPA, Santa Fe; and Walter Olsen to General Superintendent of the UPA, 4 August 1966, LR, NRR, NPA, Santa Fe.


32. Patrick L. Wehling to SPA, NPA, and Zuni, 7 October 1975, LS, NRR, BIA, Albuquerque; New Mexico Agricultural Conservation Program, 8 November 1977, LS, NRR, BIA, Albuquerque; and Loyd E. Nickelson to SPA, NAP, and Zuni, 22 November 1977, LS, NRR, NAP, Santa Fe.


